Briefing Paper Advancing the Lessons in Sustainable Development: Case Studies in Global Bureau Environment Projects

The Biodiversity Support Program Coastal Resource Management Project Environment and Natural Resources Policy and Training Project Environmental Planning and Management Project

Prepared by
Michele Zador, Environmental Consultant
Environment and Natural Resource Information Center,
DATEX, Inc.

September 1995

# Table of Contents Summary

Approaches for Identifying/Disseminating Lessons Learned

Program reviews and evaluations

Applied research

Pilot projects

Innovative tools and strategies

## **Biodiversity Support Program**

Overview

Identifying and Applying Lessons Learned in Biodiversity Conservation

- 1: Integrate conservation with economic and social development
- 2: Foster local participation in conservation strategies and actions
- 3: Promote research, monitoring, and evaluation
- 4: Generate and disseminate conservation information
- 5: Foster greater understanding of economic and non-economic values of biodiversity

**New Directions** 

### Coastal Resource Management Project

Overview

Lessons in Successful Coastal Zone Management

CRMP's Leadership Role in Coastal Zone Management

## Environment and Natural Resources Policy and Training Project

Overview

Implementation Framework

Identifying New Lessons in Environmental Policy

Regional Assistance

In-Country Assistance

Policy Analysis and Research

Disseminating Lessons and Findings

**Publications** 

Training workshops

#### Environmental Planning and Management Project

Overview

Identifying and Communicating Lessons in Environmental Planning

Natural Resource Management Strategies and Assessments

Natural Resource Sectoral Planning and Assessments

Community Planning and NGOs

**Information Management** 

Facilitating Multilateral Environmental Programs

Identifying Lessons Learned in Environmental Planning

**New Directions** 

Advancing the Lessons in Sustainable Development:

Case Studies in Global Bureau Environment Projects

### Summary

This paper examines how four Global Bureau environment projects are helping USAID to identify and communicate lessons learned and innovative approaches in environmental management. The four projects are the Biodiversity Support Program (BSP), the Coastal Resource Management Project (CRMP), the Environment and Natural Resources Policy and Training project (EPAT), and the Environmental Planning and Management project (EPM). While the projects focus on different aspects of the environment, they share a number of common elements that illustrate the unique role that Global Bureau projects often assume within the Agency.

Most notably, the four projects have made important strides in furthering understanding of the linkages between environmental management and development, and applying this knowledge to promote innovative environmental strategies throughout the Agency. To gain a better perspective of their accomplishments, it is important to note that three of the four projects were launched in the early to mid-1980s when USAID was just beginning to fully integrate environmental considerations into its development activities. Issues such as biodiversity loss, natural resource degradation, and global warming were capturing the Agency's attention, yet development specialists had few models and strategies with which to respond. The Global Bureau therefore designed these projects to provide technical guidance and leadership in areas of the Agency's portfolio that at the time were new and often poorly understood. For project implementation, it relied on some of the foremost U.S. universities, environmental organizations, and consulting firms, which in turn forged close partnerships with host governments and NGOs.

Since their formative years, the projects have provided the technical and conceptual foundation for hundreds of environmental activities, as highlighted in this paper. The projects have leveraged modest Global Bureau funding to create support for pioneering environmental initiatives from operating units around the world. In some instances, the projects have paved the way for major programs at multilateral development banks.

Other significant aspects of these projects relate to their global perspective and longevity. Projects have identified lessons learned and innovative approaches from activities implemented in a single country as well as across regions, and then disseminated this knowledge throughout the Agency and among host countries. The projects have also been at the forefront in field testing new environmental techniques and hypotheses in a small sample of countries. Once these fully validated, have later served as models for global replication. Their longevity (13 years in the case

of EPM) has made it possible to monitor and evaluate practices and trends over the medium to long term.

Approaches to Identifying/Disseminating Lessons Learned

As this briefing paper illustrates, the four Global Bureau projects are identifying lessons learned and developing innovative techniques through a multitude of approaches. Some of these rely on examining existing projects and policies. Others rely on launching new initiatives as a means of identifying lessons. The projects nevertheless share a number of approaches; these are discussed following. Program reviews and evaluations. Three of the four projects BSP, EPAT, and EPM support in-depth reviews and evaluations of existing environmental projects and programs to identify the best practices and lessons learned in the field. The topics run the gamut, including assessments in building environmental impact assessment capacity in Asia, and overviews of lessons in environmental monitoring and evaluation in Africa. A major new program launched by BSP is especially noteworthy. Over the next three years, BSP will analyze various biodiversity projects across geographic regions to identify the key factors that determine the success or failure of conservation initiatives.

Applied research. The four projects also rely on applied scientific and policy research to identify and examine the root causes of environmental degradation. This knowledge is then used in the design of appropriate responses. EPAT, for instance, focuses largely on policy and economic analysis to guide the Agency and host countries in formulating and implementing new policies and projects. For example, its research in agricultural and pesticides policy in sub-Saharan Africa is encouraging local governments, the Agency, and other bilateral donors to reassess their own policies on pesticide use.

Pilot projects. CRMP has championed the use of pilot projects to field test new hypotheses, strategies, and tools for environmental management. CRMP projects in Ecuador, Sri Lanka, and Thailand have uncovered new lessons and strategies in integrated coastal zone management that are now being adapted in other countries. This pilot approach is also being promoted by BSP in Asia and the Pacific. BSP is supporting 18 eco-enterprises in the region and is closely monitoring their impact to assess the validity of the ventures' underlying assumptions and approaches.

Innovative tools and strategies. Projects are also fine tuning existing strategies and tools and developing new approaches in order to remain responsive to lessons, trends, and needs as they arise. For example, EPM became a leading proponent of participatory national and regional environmental planning after it recognized that local stakeholders must be integral partners in the development and implementation of these plans. The project has been instrumental in introducing participatory and collaborative planning for 16 national environmental action plans and strategies. With the adoption of these, EPM is now focusing on their implementation.

The four projects also have placed high priority on communicating their findings and experience to a wide audience both in the U.S. and abroad. This has been accomplished in a number of ways. Most important, projects have supported extensive publication series policy briefs, technical papers, case studies, "how-to" manuals, and newsletters that have informed

thousands of development specialists about new research findings and developments. Publications are often written in local languages to ensure dissemination to environmental ministers in capital cities as well as officers of grassroots NGOs in remote areas. Training courses, presentations at international conferences, and in-country workshops are also commonly used to reach highly targeted audiences. In-country seminars allow project staff to work with practitioners in the field to identify lessons from the bottom-up. Projects are also putting more energy into creating opportunities for developing country specialists to access environmental information in their own countries. Several Global Bureau projects are establishing environmental learning centers as focal points for information on local and global environmental issues. They are also promoting the development of inexpensive newsletters and informal workshops, as well as promoting use of the Internet to establish networks of environmental professionals who can communicate with each other rapidly.

In conclusion, the Global Bureau can point to numerous areas in which its projects have advanced understanding and the "state-of-the-art" in the environment and natural resources management. Indeed, these projects have influenced the course of environmental projects and programs throughout the Agency and at other development organizations. For example, EPM contributed to the environmental agenda at the 1994 Summit of the Americas. Three projects BSP, CRMP, and EPM participated in UNCED preparatory meetings to help draft Agenda 21. Projects have also leveraged major environmental programs at the Inter-American Development Bank, the Global Environment Facility, the World Bank, and other donors.

## **Biodiversity Support Program**

#### Overview

The Biodiversity Support Program (BSP) was established in 1988 to promote strategies and projects that safeguard biodiversity while simultaneously enhancing the livelihoods of local communities. The idea behind BSP is to provide a mechanism for AID Bureaus and Missions to tap into leading U.S. expertise in biodiversity issues. BSP was developed in response to growing concern within the Agency and Congress over the rapid loss of global biodiversity. Prior to the project, very few Missions and partner countries integrated biodiversity conservation into their development strategies and biodiversity concerns within the Agency were often handled in an ad hoc manner. The Global Bureau launched BSP, one of four components of the Conservation of Biological Diversity Project, by forming a cooperative agreement with three leading U.S. environment groups: The World Wildlife Fund, The Nature Conservancy, and the World Resources Institute.

BSP's contributions are widely regarded as having surpassed initial expectations and influencing environmental strategies throughout the Agency. The program's buy-in rate \$18.4 million out of the \$29.9 million obligated since 1988 (core funds total \$11.5 million) is the highest in the Global Bureau and attests to strong demand throughout the Agency. Over 100 activities in 60 countries have been carried out under BSP, providing technical assistance to Bureaus, Missions, governments, and NGOs to prepare biodiversity projects and strategies. BSP also has promoted innovative approaches in areas such as biodiversity monitoring and evaluation, national strategic planning, and geographic priority setting. The program has been at the forefront of participatory planning and implementation, having worked with 300 U.S. and developing-country conservation, scientific, and educational organizations. It also has provided 121 small research grants to developing-country scientists and analysis and dissemination of information on a broad range of issues.

## Identifying and Applying Lessons Learned in Biodiversity Conservation

At its present stage, BSP has identified major lessons and constraints to conserving biodiversity and has begun to develop and test various solutions. In general, BSP finds that the field of biodiversity conservation has undergone a major paradigm shift. Experts are re-thinking many of the basic assumptions and principles that have driven past activities. For example, approaches that once embraced the preservation of islands of biological wealth with little concern for the broader development issues are now being re-examined and modified to fit within a social, economic, and institutional context. BSP recognizes, however, that these efforts still are in their formative stages. The program has taken a lead role in facilitating the development of new operating principles and innovative approaches to integrate biodiversity conservation with social

and economic development. The major lessons that BSP has adopted to direct its assistance and a small sample of its many activities are listed below. These highlight the program's successes in identifying, applying, and disseminating lessons and findings.

Lesson 1: Integrate conservation with economic and social development through innovative approaches

BSP believes that the imperative to protect biodiversity has focused attention on the limitations of past conservation strategies and on the urgent need to develop innovative approaches that integrate conservation with the sustainable use of biological resources. A major goal of BSP is to spur innovative projects and strategies that take advantage of areas in which conservation and development intersect and complement each other. This has resulted in a number of significant ventures.

Supporting integrated conservation and development projects (ICDPs). A major program focus is to further understanding of how to successfully implement integrated conservation and development projects. BSP has developed conceptual frameworks for designing such projects and has facilitated their preparation, implementation, and monitoring. A major contribution in this respect is a BSP publication, Designing Integrated Conservation and Development Projects, that has become a standard reference on the subject. The document identifies the essential preconditions for successful ICDPs and suggests a framework for designing these conservation projects. High demand has lead BSP to issue the publication in French, Spanish, and a third printing in English.

In the field, BSP is supporting and testing various types of ICDPs. Two activities are especially noteworthy. The Biodiversity Conservation Network, which BSP manages through a \$20-million cooperative agreement with the ANE Bureau, is supporting up to 18 community-based businesses in Asia and the Pacific that depend directly on the sustainable use of biodiversity for their success. BCN aims to link income generation directly to conservation by promoting ventures such as ecotourism, non-timber forest products, small-scale timber harvesting, and chemical prospecting. These ventures are being closely monitored to assess their performance and determine their lessons. The Biodiversity Analysis for Africa Project is another major undertaking to identify priorities and test new strategies for conservation through 35 demonstration projects, research grants, and networking activities. The basic premise behind the program is that successful conservation efforts must be locally managed and developed in tandem with national and international policies. BSP is currently working with partners to identify and analyze successful implementation strategies. It plans to distribute the lessons learned to African project managers, policy makers, and donors.

Strategic planning and analysis. BSP has promoted processes that take an integrated approach to conservation and development planning. The document African Biodiversity: Foundation for the Future, issued in 1993, was a collaborative effort between U.S. and African conservationists to identify and analyze the critical issues for integrating biodiversity conservation with development and to recommend actions and guidelines for future efforts. The document was instrumental in shaping organizational strategies and programs within the

Africa Bureau and Missions, host-country governments, and NGOs. In 1994, BSP released Conserving Biodiversity in Africa: A Review of the USAID Africa Bureau's Biodiversity Program, which offered detailed lessons and recommendations to strengthen the Africa Bureau's biodiversity portfolio.

# Lesson 2: Foster local participation in conservation strategies and actions

BSP has determined that a major shortcoming of past conservation projects was a failure to involve local stakeholders as full participants in the project cycle. While BSP and its partners recognize that local communities, NGOs, and governments must be fully integrated into the cycle, the challenge ahead lies in empowering them to make their participation truly effective. To this end, BSP is working with its partners to develop innovative approaches in conservation planning, institution-building, and the transfer of appropriate technologies and information that will encourage local participation.

National conservation planning. BSP has provided governments and NGOs with new and participatory tools and approaches to plan conservation strategies. For example, in Papua New Guinea, BSP commissioned a series of technical studies and sponsored workshops that brought local and foreign scientists, NGOs, landowners, and governmental officials together for the first time to discuss and reach consensus on conservation priorities and options for the country. The activity resulted in the Conservation Needs Assessment for Papua New Guinea, which then became the basis for a GEF project and other national and international NGO activities. Equally important from the Global Bureau's perspective, the PNG strategy became the prototype for developing the Bulgaria National Biological Diversity Conservation Strategy, which was funded through a buy-in from the ENI Bureau. The Bulgaria strategy has now set the stage for a separate GEF project.

BSP also has been involved in setting up conservation funds. The Indonesian Biodiversity Foundation, another ground breaking effort in which BSP played a pivotal role, was designed with an unprecedented level of participation from a broad cross-section of the country's conservation, business, scientific, and development communities. The Indonesia Biodiversity Foundation, one of AID's largest conservation funds, has served as a model for similar conservation funds elsewhere.

Demonstration sites in community participation. BSP also is working at the grassroots level to develop new ways of enlisting local support for conservation. For example, a buy-in from the USAID/Thailand Mission enabled BSP to work with local NGOs, Wildlife Fund Thailand, and tribal communities living in the Huay Kha Khaeng-Thung Yai World Heritage Site. The program gathered social and biological baseline data, conducted ethno-botanical surveys, and organized participatory land use mapping exercises. Due to the success of these methodologies, the activity has achieved international recognition as a study tour site and case study in empowering indigenous peoples living inside protected areas.

Training local counterparts. Although BSP places high priority on training in virtually all of its

activities, the program's efforts under the Protected Area Conservation Strategy (PARCS) project are particularly relevant in helping to identify new lessons. BSP is leading several PVOs in a four-year program to train protected areas staff in Africa. PARCS initially conducted a training needs assessment in 16 countries and is currently testing a low-cost, short-term training program for protected areas managers across the continent. In addition, PARCS is building a network of African experts in biodiversity and supporting workshops for protected areas managers.

## Lesson 3: Promote research, monitoring, and evaluation

Another major constraint in biodiversity conservation is the lack of understanding of and experience in the application of ecological, social, and economic principles to managing ecosystems in developing countries. Part of the problem is that biodiversity projects have only recently begun to support rigorous monitoring and evaluation systems that assess the biological, economic, and social validity of new conservation approaches and assumptions. BSP is responding to this lesson by supporting various biodiversity monitoring and evaluation activities, strengthening the conceptual underpinnings that guide its conservation initiatives, and identifying best practices in the field.

Development of an analytical conservation framework. Perhaps BSP's most important contribution to uncovering lessons for biodiversity conservation was initiated in early 1995, when it launched a major, three-year program to analyze many of the philosophical underpinnings that guide AID's conservation programs. BSP ultimately hopes to bring greater coherence to the field of biodiversity conservation and sustainable development by mapping out an analytical framework. Developing the framework will involve distilling the lessons learned by major U.S. and foreign partners, identifying the critical issues in conservation and development, and examining policy opportunities. Collaborative studies linked to monitoring and evaluation of BSP projects, as well as drawing on the broader BSP consortium and other data, will be launched to investigate assumptions in certain key areas of the analytical framework.

Biodiversity monitoring and evaluation. As mentioned earlier, the Biodiversity Conservation Network is another major initiative helping to uncover new lessons and methodologies. The Network is AID's first biodiversity project that emphasizes social, biological, and economic impact monitoring. BSP hopes to determine the conditions under which eco-economic enterprises contribute to biodiversity conservation and, by disseminating the findings, to influence conservation policy and programs within AID, host countries, and the larger conservation community. Research grants program. On a national scale, BSP's small grants program has enabled 121 developing country practitioners and institutions in 38 countries to explore the lessons arising at the local level in policy and science. BSP has then helped to disseminate the findings more widely by paying grantees' participation and presentation fees at international conferences. A number of grants have influenced national conservation practices. For example, as a direct result of one grant that looked at the harmful impacts of forest harvesting management practices on biodiversity in Indonesia, the government modified its forest concession system to encourage biodiversity protection.

Applied and cutting-edge research. BSP staff also undertake cutting-edge research on a range of conservation issues. For example, under the Central Africa Global Climate Change and Development Program, BSP has been researching the impacts of global climate change on biodiversity and suggesting possible adaptive measures. As part of the endeavor, BSP helped establish a U.S.-Africa research network and facilitated the development of a new GCC strategy in the Africa Bureau. BSP's work also has been integrated into the Central Africa Regional Project for the Environment (CARPE), a new \$30-million project that focuses on biodiversity conservation and global climate change in that region.

#### Lesson 4: Generate and disseminate conservation information

BSP has concluded that another impediment to conservation is the lack of awareness among international and local stakeholders about the linkages between conservation and sustainable development. In certain cases, existing and new information is poorly disseminated, while in other instances, the information does not exist. BSP is creating greater awareness and technical expertise in conservation and development in AID and partners in several ways.

Information dissemination and awareness-building. As mentioned previously, BSP places high priority on disseminating information on recent advances and approaches in biodiversity conservation. At the international level, the program sponsors conferences and supports the participation of developing-country partners. In addition, project staff present their work to various international meetings. BSP has published more than 15 documents, including national conservation strategies, project reviews, and conservation manuals. These have been distributed free of charge around the world in Bahasa Indonesian, Bulgarian, English, French, Spanish, and other languages.

BSP also disseminates information at the local level to communities, environmentalists, practitioners, and governmental officials by sponsoring numerous round tables, workshops, community meetings, and training seminars. In the El Cielo Biosphere Reserve in northern Mexico, BSP is supporting an intensive awareness and constituency-building program that involves residents in the reserve's buffer zone and surrounding towns, as well as local and national authorities. BSP is looking to the Mexico project as a model for other environmental education projects.

## Lesson 5: Foster greater understanding of economic and non-economic values of biodiversity

BSP's fifth major lesson reflects the low economic and ethical value that stakeholders often place on protecting biodiversity. Economic systems consistently undervalue biological resources due to incomplete information on many biodiversity issues and to the inability of these systems, as currently structured, to properly account for the environmental benefits and services provided by these resources. Another equally important aspect relates to current cultural and political systems that discount the importance of biodiversity and place a low premium on long-term environmental trends. BSP is working toward creating economic, ethical, and other incentives that encourage

decision-makers to recognize the fundamental benefits of biodiversity. Economic research. A good example of how BSP is contributing new findings in the valuation of biological resources is a small grant that assessed the economic worth of the Monteverde Cloud Forest Preserve in Costa Rica. The analysis, which found that the preserve's value as an intact cloud forest was higher than as land converted to agriculture, has been published in the journal Ecological Economics and is being used by the Tropical Science Center in Costa Rica to manage the area.

Integration of non-economic values. BSP also is taking a number of steps to integrate non-economic and non-Western values into the development of conservation strategies and projects. In its study, African Biodiversity: Foundation for the Future, BSP stresses that, for solutions to be effective, local values, priorities, and knowledge systems must be integrated into conservation initiatives. This new "values" approach is now being tested in Thailand, where, at the request of the Karen indigenous communities, BSP helped to design a cultural support program to ensure that traditional conservation and cultural values are passed on to the next generation of tribal members. In Bolivia, a BSP small grant program is working with an indigenous community to preserve its cultural and biological resources by helping them gain title to their traditional lands. These experiences soon will be documented in an upcoming manual, to be published collaboratively with the International Union for the Conservation of Nature and the World Bank, which will examine social sustainability issues in conservation.

#### **New Directions**

BSP notes that its role in promoting biodiversity conservation needs to remain dynamic and responsive to the natural progression of events and trends in the field. Over the last 15 years, developing country NGOs and governments have gained significant experience and capacity to address biodiversity issues themselves. While the need for international PVOs to directly implement projects has decreased markedly, an important niche remains in facilitating and acting as a catalytic agent for local conservation programs. BSP has taken on this role in many of its activities. For example, it has been a catalyst for small, innovative projects implemented by local organizations, and has then shared this information more broadly. BSP also is serving as a conduit to bring technical information to AID staff through workshops and conferences.

BSP's evolving role also entails providing intellectual leadership and facilitating interactions between donors. For example, BSP is helping countries to respond to donors' growing emphasis on addressing host country and regional priorities. The project has helped identify conservation priorities in Papua New Guinea, Bulgaria, and the Ukraine; some priority activities identified through BSP-led exercises have later been funded by AID, GEF, and other donor agencies. The geographic-priority setting for Latin America, led by BSP in collaboration with five U.S. conservation groups, encouraged the AID Missions in Brazil and Paraguay to include two high-priority sites in their project portfolio. The exercise also is serving as a model for similar efforts by AID in Asia and the Pacific and by the World Bank/GEF in Latin America.

BSP's new program to conduct analyses and generate lessons in conservation across geographic regions reflects a new phase for the project. Part of the impetus behind the program is now being driven by local NGOs, which are requesting information on what is being tried in other

parts of the world and what should be replicated. BSP will analyze the results of local and regional conservation efforts and disseminate its findings to provide guidance to local NGOs, governments, AID, and other international donors on what kinds of conservation projects should be promoted and under what conditions.

## Coastal Resource Management Project

#### Overview

The Global Bureau's Coastal Resource Management Project (CRMP) has paved the way for coastal management initiatives in Agency missions, and has propelled AID to a position as an international leader in integrated coastal zone management. According to its staff, the ten-year project, funded for \$10.5 million and implemented through a cooperative agreement with the University of Rhode Island's Coastal Resources Center, set out in 1985 on a path that diverged from the conventions for coastal conservation and management at the time. Only two AID host countries, Costa Rica and Sri Lanka, supported formal--though small-- coastal zone management programs. Coastal programs in the Agency were focused by sector on fisheries, water supply and treatment, or aquaculture. In general, the conservation community paid little attention to the unique challenges confronting environmental management in coastal areas: managing common property resources; sectoral and contradictory policies governing land, coastal, and marine resources; and the absence of local constituencies to sustainable manage coasts.

CRMP, which closed out in 1995, was the first integrated coastal management project to be funded by any development agency. The project's original goal was to test whether coastal management programs successfully carried out in the U.S. could be adapted to developing-country settings. The U.S.-based efforts coupled multi disciplinary policy planning and implementation with local participation, as mandated by the National Coastal Zone Management Act, To accomplish its goal, CRMP promoted a two-track strategy in three pilot countries: Ecuador, Sri Lanka, and Thailand. As the first track, the project focused on institutional and policy strengthening within central governments, including building teams that consisted of trained nationals in coastal zone management. The project was designed with the recognition that a single governmental agency could not successfully meet the requirements of addressing the intertwined, complex environmental and economic issues of coastlines water quality and supply, agriculture, forestry, tourism development, urban planning, and fisheries. It therefore featured the development of partnerships among public institutions and resource user groups. The second, closely linked track involved working with residents in "special management zones" to field test a variety of management techniques quickly and inexpensively. The thinking behind the project's local focus was to bring on-the-ground experience into policy dialogue at the national level and then to obtain visible results and improvements from corresponding conservation and coastal management activities. More important, local communities and resource users that benefitted directly from improved coastal resource management could be advocates for further action in their countries.

In Ecuador, CRMP helped create a coastal program from the ground up. Initial efforts in the mid-1980s were directed toward identifying and examining priority environmental issues for

coastal areas, followed in 1989 by technical assistance to the government to establish a national-level coastal resource management program. CRMP worked closely with local communities in five special management zones to formulate environmental management plans and to undertake grassroots exercises in mangrove management, fisheries, environmental education, and sanitation. The project also worked with regional port captains and government field personnel to set up small units responsible for monitoring and enforcing environmental regulations. At the national level, a special coordinating body of seven ministries was created to develop and implement coastal policy.

In Thailand, early efforts in 1986 focussed on managing Phuket Island, which had been transformed in 10 years from a pristine tropical habitat to a magnet for international tourism. Land development was destroying offshore coral reefs. A CRMP demonstration project geared toward protecting Phuket's corals became the building block for a follow-on strategy for nationwide coral reef conservation that was released and adopted in 1992. In Sri Lanka, where civil strife caused the cancellation of several project activities, CRMP worked with an existing coastal management agency, universities, and NGOs to prepare a national coastal resource management strategy and plans for two special management areas. Major areas of assistance were in analyzing the issue of coral mining and in identifying and protecting significant coastal habitat and cultural heritage sites.

Starting in 1990, CRMP began placing greater emphasis on regional outreach and training to disseminate the management techniques and policies developed in the pilot countries. By December 1994, 164 developing-country practitioners from 49 nations had attended CRMP's two-to-four-week training courses. The project helped set up coastal research and learning centers within universities in Ecuador and Thailand. The project's three newsletters, based in Chile, Sri Lanka, and the U.S., reached 5,000 subscribers in 160 nations, creating the first international network of coastal managers of its size and scope. In addition, CRMP has documented its experience through a series of review and policy papers and has disseminated its findings through presentations at various international conferences and workshops.

## Lessons in Successful Coastal Zone Management

CRMP's integrated approach, which harmonizes a top-down and bottom-up approach to managing coastal zones, is now regarded by AID and other development organizations as pioneering and a model. Based on project experiences, staff have identified eight characteristics of a successful coastal management program:

- 1. Coastal management is essentially an effort in governance. Successful coastal programs follow a policy process in which the challenge lies in developing and implementing sustainable solutions to resource-use problems and conflicts.
- 2. Programs need to be issue-driven and integrated. Effective projects need to focus on a limited number of problems that are relevant to the societies in which they operate. In this way, project resources can be focused, tangible results are more likely, and constituencies for

conservation can be built.

3. Projects need to work both at the national and locals levels, with strong linkages between. There are a number of reasons for a two-track approach:

Few successes in natural resource management exist at the national level on which to build policies. It is easier to find out what works and why in small-scale and geographically-specific project sites.

Central government agencies are more likely to support local-level experimentation than proposed changes to their overall existing policies, procedures, and authorities.

National-level policy reform is most likely to be supported if based on shared experience.

- 4. All stakeholders need to be involved in project planning and implementation through an open, participatory, and democratic process. Public participation, especially the participation of resource user groups (as proven in all U.S. environmental initiatives), is being demonstrated to be just as essential in coastal management initiatives in developing countries.
- 5. Projects should be designed and implemented in cycles, frequently closing the loop between planning, implementation, and policy reform. Coastal management is an ongoing process, not a one-time fix. Effective programs continue through the policy formation and implementation process, building on the successes of previous programs, changing and expanding the issues addressed, and strengthening the ability of the overall effort to tackle increasingly complex issues.
- 6. Build constituencies that support coastal management. Most coastal management programs now have public awareness and education programs. They also involve local communities in the analysis of issues and in the formulation and implementation of management programs. Successful programs work to use this increased awareness to build political will and support for specific coastal resources management initiatives.
- 7. Utilize the best available information for decision-making. Successful programs combine good process with good science. While coastal management programs help define and may support very focused, policy-relevant research, that is not their main job. Rather, good programs understand and address the management implications of scientific knowledge.
- 8. Set specific targets; monitor progress and evaluate performance according to these targets. Self-assessment and adjustment is an important characteristic of successful programs.

# CRMP's Leadership Role in Coastal Zone Management

The CRMP approach has attracted global interest in and support for integrated coastal zone management. During the life of the project, the Global Bureau's \$10.53-million investment was matched with \$7.9 million from Missions and host governments. In 1992, the Sri Lanka Mission assumed full responsibility for funding its pilot with a \$2.4-million buy-in from its Natural

Resources and Environmental Policy Project (NAREPP). The Thai government has allocated \$80,000 to begin implementing its coral reef strategy. The Regional Economic Development Services Office for East and Southern Africa (REDSO/ESA) provided a \$105,000 add-on to develop initial coastal management strategies for two pilot sites. The Regional Office for Central American Programs (ROCAP) provided another add-on to define a regional coastal management action agenda for Central America. CRMP approaches are also being applied in the Philippines (SUSTAIN) and El Salvador (PROMESA). In addition, CRMP has helped the Asia Near East Bureau and AID Missions in Indonesia, Panama, Papua New Guinea, and the Philippines to define their coastal priorities.

Beyond AID interventions, CRMP is exercising intellectual leadership globally. Project staff assisted in the process of drafting Chapter 17 of Agenda 21 by preparing background materials and participating in an UNCED preparatory meeting to consider text for the Agenda on the sustainable development of coastal areas. With CRMP guidance, the U.S. State Department launched the U.S. Coral Reef Initiative. Project staff also have assisted FAO, UNDP, UNEP, and private U.S. foundations to develop their coastal management agendas. They also have helped the World Bank and IDB design their first coastal management loans; the IDB is funding the second phase of the Ecuador pilot with a \$13.4-million loan.

This growing demand has also translated into the Global Bureau's continued support for CRMP. A follow-on water resources planning project is slated to begin in 1996, with activities in East Africa, Indonesia, Jamaica, and Mexico. The new project will expand CRMP's scope into environmental problems arising from urban growth and tourism.

## Environment and Natural Resources Policy and Training Project

#### Overview

The Environment and Natural Resources Policy and Training Project (EPAT) has been conducting policy analysis and institutional strengthening activities since 1991 to address a wide range of environmental and natural resources issues in developing countries. EPAT's ultimate goal is to support the institutionalization of economic approaches and policies that promote sustainable resource use and environmental protection. To achieve this objective, EPAT concentrates on identifying the underlying policy, market, and institutional constraints that lead to environmental degradation, and on conducting policy analysis as required to formulate appropriate responses. It also assists local institutions in strengthening their capability to implement and monitor recommended actions. Throughout this process, EPAT places high priority on documenting and disseminating its findings and lessons with a view toward broadening understanding of the linkages between economic policy, sustainable environmental and natural resource use, and economic development.

The newest of the projects examined in this report, EPAT was launched four years ago to fill a critical gap in AID's then-expanding environmental portfolio. Within the Agency, staff recognized that poorly planned economic policies and market distortions were major obstacles to sustainable development. While several projects in the regional Bureaus and the Missions examined certain aspects of the links between policy and environmental sustainability, the Global Bureau believed that a separate project was required to provide leadership and continuity in this critical area of the Agency's agenda. EPAT was established to respond to this need.

## Implementation Framework

EPAT is implemented by two contractor groups that together rely on 36 consulting firms, universities, and NGOs. The Midwest Universities Consortium for International Activities (MUCIA) has organized a group of 11 universities and four consulting firms to provide services in state-of-the-art research and information dissemination. The consortium, which holds a \$9.5-million cooperative agreement and a companion requirements contract for buy-ins, has undertaken policy analysis in five areas: (1) forest, water, and watershed management; (2) institutions and policy implementation; (3) energy, industry, and the urban environment; (4) population and the environment; and (5) macroeconomic policy. Financial pressures inside the Agency will prevent the MUCIA cooperative agreement from reaching its authorized total, and its activities will likely cease ahead of schedule in 1996.

EPAT's other contracting group, the Winrock International Environmental Alliance (WIEA), a group of 13 consulting firms and NGOs and eight universities, has primary responsibility for in-country research, policy dialogue, and institutional strengthening.

WIEA's core contract also supports some analytical activities for the Global and Regional Bureaus. WIEA relies heavily on a companion requirements contract with buy-ins from Bureaus

and Missions to undertake policy analysis on specific country and regional issues. Both MUCIA and WIEA share responsibility for human resource development.

# Identifying New Lessons in Environmental Policy

EPAT's chief mechanism for identifying new approaches to environmental management is its applied and state-of-the-art policy research. Its findings have guided the development of a number of AID initiatives and laid the foundation for strengthening policies and institutional capacity in several countries. Through the project's extensive publications program, EPAT has helped generate greater awareness and understanding of the relationship between policy and the environment.

### Regional Assistance

WIEA's work in pesticides policy in sub-Saharan Africa is a particularly good example of how EPAT is uncovering and disseminating useful information on policy approaches to regional environmental issues. The project is conducting a major study on the environmental effects of pesticides use in the region and on the potential impacts of agricultural reform on the adoption of integrated pest management. WIEA has completed in-depth case studies of pesticide policies in Kenya, Cameroon, and Uganda and has produced a synthesis paper regarded as the most comprehensive discussion yet on the subject. Technical papers from EPAT's research have been distributed to, among other organizations, the Association of International Agricultural Economics, the World Bank, the Environmental Protection Agency, and several African governments, resulting in a number of positive actions. FAO used the reports as background documentation for an international conference on the topic. The governments of Germany and Japan are revisiting their own development assistance policies based on EPAT's findings; the latter is a major provider of pesticides to the sub-Sahara. Within AID, the Madagascar and Ethiopia Missions will have EPAT conduct pesticides use and related assessments. Finally, an upcoming issues paper, Pesticides and Productivity: Opportunities and Dilemmas in an Era of Agricultural Policy Reform, is expected to support the development of a new Agency-wide pesticides policy.

Another major regional effort in which EPAT is facilitating the exchange of information on environment policy is a WIEA buy-in from the ENI Bureau. EPAT is preparing assessments for local AID missions on several environmental issues and suggested further steps for U.S. assistance. The buy-in also will support the establishment of joint U.S.-Ukrainian policy working groups and in the Central Asian Republics, the development of a comprehensive waste minimization strategy. To help launch these initiatives, EPAT organized a workshop in Prague in early 1995 that enabled Agency staff working in the Newly Independent States to gain technical advice from their colleagues with years of experience in Central and Eastern Europe.

## **In-Country Assistance**

Both WIEA and MUCIA are also dedicating their efforts toward helping AID Missions and government agencies support innovative approaches in environmental and natural resource policy. In Egypt, WIEA is working with the Water Research Center (WRC) to research the economic

and environmental impacts of water resource utilization and to develop strategies for the efficient and sustainable use of water in the Nile River. The findings, which will be disseminated mostly through technical reports and workshops, are expected to lead to major policy reforms by the Ministry of Irrigation.

WIEA's efforts in Jamaica exemplify how EPAT is supporting the implementation of recommended policies. The project helped lay the groundwork for establishment of the National Resource Conservation Authority, a new environmental institution engaged in policy development and implementation. It helped build a NRM data base and formulate a series of internal procedures for a newly formed pollution control and waste management division. In addition, EPAT has enhanced Jamaica's prospects for sustainable development by disseminating environmental information through a country environmental profile and a series of training workshops.

MUCIA and WIEA also have collaborated on several activities. Most recently, in Ecuador, the two contracting groups completed the first urban environmental assessment conducted by the Agency in the LAC region. The assessment examines the staggering environmental and public health challenges facing three cities in Ecuador with respect to water supply and sewerage, air and industrial pollution, and solid waste management. It also offers several policy recommendations as potential next steps for the government and AID to pursue. As is the protocol for other EPAT reports, the Ecuador assessment will be sent to Missions throughout the region to heighten awareness of the underlying causes of and potential solutions to these urban problems. In Haiti, MUCIA conducted research and issued a working paper, Policy Lessons from History and Natural Resource Projects in Rural Haiti, which explores the major obstacles to sustainable development from a historical perspective. The research has since helped shaped the Agency's environmental strategy in that country.

## Policy Analysis and Research

A number of other EPAT activities illustrate how the Global Bureau is tapping into leading U.S. research capabilities to develop and adapt cutting-edge tools in environmental policy. For example, a MUCIA buy-in from USAID/Egypt furthers the development of an innovative economic technique to evaluate the Agency's water and wastewater investments. The buy-in has provided Michigan State University researchers an opportunity to adapt a non-market valuation technique to a developing country setting. The technique developed for Egypt including household surveys of several thousand Cairo residents that show it is possible for user fees to cover basic operation and maintenance costs of Agency-funded infrastructure investments has the potential to be applied in other developing countries.

Another MUCIA research initiative currently underway examines the role of NGOs in implementing natural resource management projects. One aspect of the study focuses on tropical forest management in Latin America and the environmental effects of tourism in the small island developing states of the Caribbean. The other aspect focuses on forestry, primarily in Africa and Asia, and has resulted in guidelines to encourage effective working relationships between donor organizations, state agencies, and local NGOs. The results of these studies will be published and

### disseminated shortly by MUCIA.

Two WIEA activities that have sparked widespread interest illustrate how EPAT is advancing new approaches in environmental economics. A WIEA feasibility study on integrating environmental and natural resource accounting in Africa will be followed with a buy-in from the Initiative for South Africa to launch a pilot environmental accounting project in Namibia. In addition, a June 1995 report on the economics of biodiversity loss and conservation in Madagascar aims to help AID and the conservation community better conceptualize the impact of their activities. The report lays out a framework for characterizing how local households use rain forest resources and it reviews common conservation strategies to illustrate the potential problems that can arise from poorly-planned conservation projects.

### Disseminating Lessons and Findings

Because EPAT's policy analysis and assistance cuts across sectors, it is difficult to articulate a list of succinct lessons learned from the project. However, through its publications and training efforts, EPAT actively and broadly communicates its findings and new methodologies on an array of policy-related issues. Publications. MUCIA has an extensive publications program that reaches a wide range of audiences: developing country policy-makers and NGOs, USAID staff, and specialists in the field. Each publication typically reaches more than 2,000 organizations and individuals worldwide. MUCIA has published more than 40 documents and expects another 35 papers to be distributed over the next year. WIEA also has published 25 technical reports and discussion papers based on its support to Missions and Bureaus.

The scope of these publications varies. Policy briefs provide short overviews on general issues in environmental policy, covering areas such as eco-tourism, deforestation, and the urban environment. Working papers and studies present the results of policy research conducted by U.S. universities and project staff, often in support of Missions and Bureaus. These reports provide in-depth analyses of well-defined topics: experiences in environmental monitoring and evaluation in four African countries, the lessons learned from Madagascar's NEAP process, resource policy issues related to shrimp mariculture in Ecuador, and factors for gaining peasant cooperation in watershed management in Haiti. Other documents are how-to manuals on topics such as formulating environmental indicators. MUCIA also disseminates works that have been funded by other organizations on topics related to the aims of EPAT. For example, the project will distribute a study conducted independently by a MUCIA member on the economic processes that prevent Jakarta's urban poor from gaining access to basic environmental services.

Training workshops. Training and awareness-building workshops are other vehicles that EPAT uses to disseminate its research and the research efforts of others. For example, WIEA worked with the Africa Bureau to organize a training seminar for senior AID staff on the role of agriculture and natural resources management in the economic development of Africa. Following the meeting, EPAT distributed 1,500 copies of the seminar proceedings. Other seminars have been geared toward enhancing the capacity of developing country specialists. For instance, EPAT worked with the Organization of Eastern Caribbean States, which implements the Environmental

and Coastal Resources Project (ENCORE), to organize a high-level meeting in Dominica attended by 35 senior officials from 12 countries. In the Philippines, WIEA and MUCIA collaborated with the International Center for Living Aquatic Resources Management (ICLARM) to organize an environmental workshop, "Transforming Research into Policy." Thirty members of the Asian Fisheries Social Science Research Network attended this five-day meeting , which demonstrated how research findings can be formulated effectively to help analysts and decision-makers guide policy development.

### Environmental Planning and Management Project

#### Overview

The Environmental Planning and Management Project (EPM) has grown since 1982 to become one of AID's most influential environmental policy initiatives, providing technical assistance to more than 100 governmental agencies and NGOs in 53 countries since its inception. The World Resources Institute's Center for International Development and Environment implements EPM through a \$36-million cooperative agreement and supports institutional capacity -building, policy research and analysis, environmental information- gathering and dissemination, and communications and outreach. Its accomplishments over the last 13 years have been wide ranging. The project has helped 16 countries draft national environmental action plans and country environment profiles. It has promoted participatory approaches to engaging environmental and grassroots NGOs in policy development and implementation. The project also has conducted applied research in areas such as non-traditional agricultural exports, land tenure, and forest management. And it has helped policy-makers and planners compile and use environmental information.

EPM's goal is to redress one of the chief obstacles to sustainable development in many countries; namely, their lack of experience and institutional capacity to formulate and implement policies and strategies in the environment and natural resource management. Project activities to address these limitations have included exercises to engage NGOs and governments in policy analysis and priority-setting, as well as mechanisms to improve coordination within government agencies.

EPM's numerous activities and its participatory, action-oriented approaches have received high marks throughout the Agency, as documented in the project's 1991 evaluation. The evaluation found that EPM is promoting new ways of fostering sustainable development at multiple levels, among grassroots NGOs, local and national governments, development agencies, and the wider international conservation community. The project's high buy-in rate 45 percent of its budget reflects the degree to which Bureaus and Missions value its services.

Identifying and Communicating Lessons in Environmental Planning

EPM's principle accomplishments, in terms of uncovering new lessons and developing innovative tools for environment planning, fall into four general categories, as discussed below.

Natural Resource Management Strategies and Assessments

EPM is perhaps best known for providing policy advice and technical support to help develop national environmental action plans, country environmental profiles, and other strategic planning and policy-making processes. It assistance often follows a four-step process that emphasizes the need to enlist local governments and NGOs in environmental planning. The project typically undertakes an initial, broad assessment of the institutional needs and critical issues in

environmental planning and policy-making of a country or region. It then develops a strategy to address these needs and issues, followed by strategy implementation in consort with its partners EPM and its partners periodically review and revise the strategy as required to respond to changing circumstances and needs.

EPM has adopted this four-step approach in Africa in drafting nine national environmental action plans and strategies. In Uganda, EPM worked with local authorities to produce the country's first State of the Environment Report and a national environmental action plan that mapped out a framework for decentralizing regulatory authority over the environment and establishing an information management program. To assist these countries with implementing their plans, EPM helped launch the Network for Environment and Sustainable Development, the Africa-based secretariat on NEAPs. In Latin America, EPM has worked closely with governmental officials and NGOs in Bolivia, Chile, and Ecuador to develop environmental strategies and build new environment agencies. And in Central America, EPM encouraged the Commission for Environment and Development to take a regional approach in planning its strategy on issues such as deforestation and the role of gender in resource management.

EPM also has helped seven AID Missions (Chile, Bangladesh, Ghana, Guinea, and most recently, Indonesia, Peru, and Tanzania) and three Bureaus (Africa, Asia and Near East, and Latin America) develop their environmental strategies. In several cases, early EPM activities have been expanded into longer-term initiatives. For instance, EPM's original mandate to prepare the LAC Bureau's environmental strategy was expanded into the development of a major publication, Green Guidance for Latin America and the Caribbean: Integrating Environmental Concerns into AID Programming, which was released in English and Spanish. At the Mission level, EPM is assisting AID/Chile to implement its environmental strategy, which the project helped formulate in 1989.

# Natural Resource Sectoral Planning and Assessments

While EPM's expertise lies in participatory, multi-sectoral strategic planning and implementation, the project also specializes in several environmental disciplines: forestry and land use, environmental and natural resources information management, sustainable agriculture, gender roles in resource management, and NGO capacity-building. Within these areas, EPM's policy research, sectoral assessments, and community-based training programs are helping the environment community to identify and understanding the constraints, lessons, and successes in sustainable development.

EPM's policy and program reviews examine a wide range of sectoral issues and lessons in the environment. For example, the project recently released a study on the negative social and environmental impacts of non-traditional agricultural exports in Latin America. The research shows that non-traditional agricultural exports have resulted in impressive economic gains for the region as a whole, but the costs often have been borne by the environment and workers' health, the result of pesticides exposure. There has also not been an equitable distribution of the economic benefits. The study calls into question the sustainability of non-traditional agricultural export strategies as currently promoted by the major development agencies and makes

recommendations for making these policies more equitable and sustainable. Similar sectoral research has examined experiences in building institutional capacity for environmental impact assessments in Asia and lessons for sustainably managing tropical forests. EPM also has worked closely with BSP on two major activities. The project played a lead role in a study that examined the dynamics of forest change in Africa and it participated in the geographic priority -setting exercise to rank areas in Latin America according to their biodiversity value and the threats to this.

## Community Planning and NGOs

EPM has been at the forefront in integrating environmental and grassroots NGOs into natural resource management activities, particularly with regard to enhancing the role of these groups in national policy-making. This has been achieved principally by developing innovative techniques in public participation, training local counterparts in their application, and researching and evaluating the key factors for their success.

EPM has become well know for its methodological tools that encourage public participation in the policy design and implementation process. EPM's Participatory Rural Appraisal Handbook has been distributed free of charge in English and Spanish and has been applied in several countries to prepare all types of development activities. In Guatemala, EPM developed a consultative process to involve the Mayan people in drafting the country's national tropical forestry plan. Despite years of mistrust between the government and the traditionally marginalized Mayan population, EPM persuaded more than 1,000 communities to participate in the consultation and encouraged the government to accept the Mayan plan as part of the national forestry strategy. Approaches such as this have formed the basis of EPM's training program for community groups and local NGOs. EPM's efforts in Mexico illustrate how training activities are geared toward achieving sustainable results. In this case, EPM trained the local NGO Grupo de Estudios Ambientales in participatory methodologies. Strengthened by the experience, the NGO has gone on to train other NGOs and government agencies throughout Latin America.

The project also works to gain greater understanding of how communities can be successfully integrated into environmental management. For example, in its report, Local-Level Natural Resource Management: Lessons From the Ground Up, EPM examines ten successful community-based natural resource management projects in Africa. Another publication, Balancing Acts: Community-Based Forest Management and National Law in Asia and the Pacific, was written with NGOs in six countries and explores the role of community-based land tenure regimes in managing public forest lands.

## **Information Management**

EPM believes that access to current information on environmental trends and best practices is essential for developing and monitoring effective environmental plans and policies. It focuses a considerable amount of effort on strengthening the ability of developing country policy-makers and planners to compile, analyze, and use environmental information.

EPM's most important achievements with respect to establishing environmental information systems have been in Africa. The project worked with the Africa Bureau to establish the Natural Resource Information Consultative Group, which enlists environmental specialists from universities, governments, and international organizations to provide advice on collecting and using environmental information in Africa. EPM also has worked directly with African governments. It helped establish seven national environmental information centers that serve as conduits for the latest information on environmental trends, and it has provided technical assistance in GIS applications and environmental monitoring. EPM is now undertaking a major initiative to develop and distribute a set of digital maps of all 53 African countries. The maps include information on infrastructure and environmental and demographic trends and are expected to be used by governments and development agencies for economic and environmental planning.

Within AID, EPM was instrumental in establishing the Environmental and Natural Resources Information Center (ENRIC). EPM initially recommended to the Global Bureau that ENRIC be created to strengthen the Agency's capability to analyze and disseminate environmental information. It later designed ENRIC as a new component within the project.

Like the other three projects profiled in this paper, EPM's publication program is an important vehicle for reaching a large international audience. The project has issued numerous case studies, research papers, and workshop proceedings. One of the project's better-known publications is its biennial directory of environmental studies. Distributed to 4,000 organizations and individuals, the directory is a comprehensive bibliography of studies that highlight the latest environmental findings and lessons in 120 countries.

EPM also sponsors seminars and workshop series in developing countries to convey new approaches in environmental management to specialists in the field. Seminars also are geared toward generating lessons from practitioners in the field from the bottom up. As an example, EPM wrote case studies and held several analytical workshops and a regional conference on EIA practices in Indonesia, Sri Lanka, and the Philippines. Participants' recommendations were then documented in a final report, Strengthening EIA Capacity in Asia: A Synthesis Report of Recent Experiences with Environmental Impact Assessment in Three Countries. This report has since helped several Asian governments shape their own EIA policies.

## Facilitating Multilateral Environmental Programs

EPM's accomplishments in environmental planning and policy development have reached beyond AID to support the broader U.S. and international environmental agenda. For example, at the Summit of the Americas in Miami, Florida in December 1994, the project released its study, "New Partnerships in the Americas," to highlight innovative models in which governments, NGOs, and businesses are forging partnerships for sustainable development. On the diplomatic front, U.S. Vice President Gore requested that EPM assist the government of Bolivia in developing a national sustainable development program.

EPM also has shaped several multilateral environmental initiatives. Its comparative analysis on country environmental studies was integrated into a major report, Good Practices for Country

Environmental Surveys and Strategies, published by OECD's Development Assistance Committee, EPM co-sponsored with UNEP, OECD, and several other organizations an international forum, "Environmental Information for the Twenty-First Century." The conference materials were used to prepare for Agenda 21. Identifying Lessons Learned in Environmental Planning

EPM has built on its extensive experience in environmental planning to identify its own lessons to guide its technical assistance. The project has determined that environmental and natural resources management needs to be viewed as a long-term, iterative process that couples good technical analysis with an understanding of the political, social, and economic context in which environmental plans must operate. Ultimately, environmental planners must work toward understanding the interrelated issues and concerns of stakeholders, reconciling different and conflicting interests, and forging a consensus on a common course of action. By definition, the environmental planning process must be multi disciplinary in scope and involve both the public and

private sectors. EPM has identified four guiding principles that are essential to ensure the success of an environmental planning process:

- 1. The process must produce strategies for action. EPM has found that environmental plans often suffer from excessive technical detail and comprehensiveness that ultimately undermine their utility to policy-makers. While comprehensive national plans may provide valuable information for future activities, EPM believes that environmental plans should focus on designing and forging consensus around programs for action.
- 2. Directly address citizens' aspirations for development by fully integrating their social and economic goals. EPM believes that it is critical for planners to recognize that effective resource and environmental management directly depends on economic, social, and sectoral objectives and policies promulgated by national and local governments. The failure of policy-makers and environmental planners to account for these inter-sectoral relationships and goals can create major bottlenecks for their environmental programs. Environmental planners must therefore incorporate methodological tools and information systems that integrate these different sectors and interests.
- 3. Ensure public participation in a way that encourages private sector and community interests to be expressed freely and negotiated openly. A participatory process ensures transparency in planning, heightens the public's sense of ownership of strategies, and incorporates critical perspectives, needs, and realities into the process from the outset. To facilitate participation at all levels, EPM urges that mechanisms be developed early in the planning process to encourage dialogue, coordination, and negotiation between sectoral interests and local, provincial, and regional authorities.
- 4. Support measures for monitoring, evaluation, and adjustment. EPM has found that successful environmental policies are continually adjusted and revised based on feedback from stakeholders and activity successes and failures. It is critical for environmental plans to be designed pragmatically and phased in gradually so that funding and follow-up actions can occur in

a timely manner. Experience has shown that overly-ambitious environmental strategies can often be poor investments in time and scarce resources in which the bottlenecks to implementation often become the focus of action themselves. EPM therefore advocates the development of modest environmental plans for many developing countries to bring about real environmental and social change.

#### **New Directions**

EPM's successes and lessons are now serving as the foundation for a three-year, follow-on phase slated to be funded for \$13.9 million. Under EPM II, the project will shift away from environmental planning toward building capacity for strategy implementation. This shift reflects the remarkable progress that many countries have made in getting their environmental strategies and policies on the books, and the need to now focus on overcoming the challenges and bottlenecks to their implementation. EPM II also will place more emphasis on documenting and disseminating its experiences and insights on institutional strengthening and environmental strategy planning to support sustainable development activities, not only within AID, but also among other bilateral and multilateral institutions.